the presenting part (done by plucking a fœtal hair, which proved that the amniotic sac was open) and the liquor escaped in very small quantities but persistently and inexorably, the uterine fibres with each contraction had to retract a little. These persistent small retractions with each contraction set up a rhythm of retraction which was in fact labour. The slower the escape of the liquor, the sooner would labour be established.

REFERENCE
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Mr Stanley C Simmons (*St Thomas's Hospital, London*) said that he wished to endorse Mr Gunn's anxiety over the excessive and casual use of antibiotics following induction of labour. At the International Symposium on Antibiotics, held at St Thomas's Hospital on September 29–30, 1964, it had been clear that, because of the danger of producing resistant strains of organisms, the mood of all other disciplines was away from the use of prophylactic antibiotics. Despite the warning of the bacteriologists, obstetrics seemed to be moving in the opposite direction. He thought that they had been stampeded into the use of antibiotics following induction of labour by the statistics of the Perinatal Mortality Survey. He asked Dr Sturrock if there was any clear evidence that the use of prophylactic antibiotics following induction of labour had improved these perinatal figures.

Dr Sturrock, in reply, said that the incidence of notifiable pyrexia in the mothers had doubled from 1955 to 1961. By the prophylactic use of antibiotics for the mothers when the membranes had been ruptured for forty-eight hours or more, the pyrexia rate had begun to fall in 1962 and 1963.

The giving of streptomycin to the baby when the mother's membranes had been ruptured for forty-eight hours or more had been begun in the Simpson Memorial Maternity Pavilion before the Perinatal Mortality Survey because of the occasional loss of a baby in these circumstances from *Esch. coli* septicæmia. Such tragedies seemed to have been eliminated to date by this prophylactic measure.

Mr Bruce Eton (*St Leonards-on-Sea*) said that many obstetricians who carried out surgical inductions set up the oxytocin drip after twenty-four hours if the patient was not in labour. If they felt that there was a risk of amniotic infection and if they believed in using the oxytocin drip, why wait twenty-four hours? Why not start the drip as soon as the membranes have been ruptured?

The condition of the cervix might weigh against surgical induction. The following types of cervix should not be regarded as contraindications: (1) The cervix which was soft, short and admitted at least one finger. (2) The cervix which was soft and long but admitted at least one finger throughout. (3) The cervix which was in sacral position, perhaps with a little sacculation, but was soft, short and admitted one finger. (4) The cervix, often found in primigravidæ, with a narrow rigid external os, which was otherwise short and soft, with a partially dilated internal os.

Mr D J MacRae (*London*) said that the treatment of pregnancy toxæmia had radically changed during the past twenty years, especially following the work of Dixon Hughes of Sydney in the 1940s and also of Hamlin (1952), so that the condition was either preventable or so mild that normal delivery at term could be expected. In 1958 he had reported a series of 960 cases of potential toxæmia – with a history of previous pregnancy toxæmia, abortion, hypertension or being overweight – looked after throughout pregnancy; the induction rate had been 15%, one-half by medical means and the other half by rupture of the membranes. The perinatal mortality had been 18·9 per 1,000. Intra-uterine fœtal death had occurred in 7 out of 11 stillbirths; in 6 of these death had occurred before the 38th week, so that routine rupture of the membranes at that time, as advocated by Professor Lennon, did not help this serious problem.

As regards postmaturity, calculation of the length of pregnancy from the last day, instead of the first, of the last menstrual period would resolve the problem in many cases. Stewart-Hess & Green (1962) had reported 77 cases in which pregnancy had proceeded beyond term by fourteen days or more; they had induced 6 cases, 4 medically and 2 by rupture of membranes. In their series there had been one Cæsarean section and one stillbirth, a case of congenital abnormality.

It was true, however, as the Perinatal Mortality Survey had shown, that mortality in postmaturity was high, but it was suggested that this complication occurred in nervous patients liable to hypertonic uterine inertia, or in patients with minor cephalopelvic disproportion for whom

rupture of the membranes was an added risk. Obstetric care of a high order by doctors was required during labour; resuscitation measures, including positive-pressure oxygen, should be at hand. (The improved figures for late cerebral complications reported by Professor Lennon were probably due to prevention of anoxia by this means and not to rupture of the membranes *per se*.)

Finally, improvement of the place of the United Kingdom in the perinatal mortality table could follow study of methods in other countries, such as those reported from Alberta by Margaret Hutton (1964).

REFERENCES

Hamlin R H J (1952) *Lancet* i, 64
Hutton M M (1964) *Obstet. Gynec.* 24, 396
MacRae D J (1958) *Brit. med. J.* ii, 107
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Mr J M Brudenell (*King's College Hospital, London*)[1] said that failure of induction of labour was an important clinical problem. When induction was followed by Cæsarean section the obstetrician was sometimes left wondering whether the induction should have been done. Of 526 inductions in one unit at St Luke's Hospital, Bradford, 47 (9·1%) had come to Cæsarean section. The Cæsarean section rate had been approximately twice that in non-induced patients and nearly three times that in Professor Lennon's latest series: the perinatal mortality, on the other hand, had been low, 6 babies only being lost, an uncorrected perinatal mortality rate of 1·1%.

Examination of the indications for Cæsarean section revealed that fœtal distress had occurred in labour in 14 patients and pre-eclampsia had become very severe in 2 patients. There was no evidence that induction had been a contributory factor to the Cæsarean section in these 16 patients. Fourteen patients had failed to go into labour in spite of the usual stimulant measures and induction had certainly been responsible for the Cæsarean section in these. Prolapse of the umbilical cord might have resulted from induction but among the 15 patients who had gone into labour and then failed to progress disproportion had been present in 9, all primigravidæ. Disproportion had also been present in 4 cases where the immediate indication for operation had been fœtal distress and it might have been a contributory factor to the distress. Thus it seemed: (1) Not all patients who had Cæsarean sections following an induction did so as a result of the induction; quite a high proportion would have had the operation anyway. (2) Patients who failed to progress in labour after induction often did so as a result of previously unsuspected disproportion.

[1]Late of St Luke's Hospital, Bradford